



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/843,339	04/26/2001	Fraser Keith Mc.Neil-Watson	A34263	8519

21003 7590 01/27/2006

BAKER & BOTTS
30 ROCKEFELLER PLAZA
NEW YORK, NY 10112

EXAMINER

CHOI, LING SIU

ART UNIT	PAPER NUMBER
----------	--------------

1713

DATE MAILED: 01/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Am

Office Action Summary	Application No. 09/843,339	Applicant(s) MC.NEIL-WATSON ET AL.	
	Examiner Ling-Siu Choi	Art Unit 1713	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-53 is/are pending in the application.
- 4a) Of the above claim(s) 1-36 and 46-53 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 37-45 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 December 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☒ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>11/25/2002</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in response to the Response to Restriction Requirement filed November 10, 2005. Claims 37-45 of Group II have been elected **without traverse**.

Specification

2. The disclosure is objected to because of the following informalities: A subtitle of "**Brief Description of the Drawing(s)**" is missing.

Appropriate correction is required.

Claim Objections

3. Claim 37 is objected to because of the following informalities: (a) **claim 37**, lines 14-15, "at a first, relatively low, frequency" is suggested to be changed to --at a first relatively low frequency--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102/103

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office

Art Unit: 1713

action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claims 37-45 are rejected under 35 U.S.C. 102 (b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over DeRemigis (US 4,097,153).

A capillary particle electrophoretic mobility distribution determining apparatus comprising	
1	a holder for a capillary cell adapted to contain a dispersion
2	a light source
3	a detector adapted to detect light scattered from a detection zone of the capillary
4	electric field generating electrodes adapted to generate an electric field in the region of the detection zone
5	a controller adapted to control the electric field applied by the electrodes, wherein the controller is adapted to apply an electric field at a first relatively low frequency and at least a second relatively high frequency, the first frequency being low enough that better velocity distribution resolution is achieved than could be achieved at the second frequency and the second frequency being high enough that the measured velocity

	distribution is substantially unaffected by electro-osmotic flow
6	a <u>signal processor</u> adapted to process the signals detected in use by the detector to determine a velocity mobility distribution, wherein the porocssor is adapted in use to modify the particle velocity distribution spectrum obtained at the first frequency by <i>shifting it by an offset amount to remove the electro-osmotic velocity</i> , the offset amount being determined using information from measurements at both the first and second frequencies of field reversal

(summary of claim 37)

DeRemigis discloses an apparatus to measure the **electrophoretic mobility** of particles suspended in a fluid medium, wherein the particles in a fluid medium are subjected to an electric field alternating between a **first** and **second intensity** under a coherent electromagnetic radiation to produce scattered radiation, the coherent radiation and the scattered radiation being directed to a detector to produce a spectrum of heterodyne signal in which the spectral composition with the first intensity of applied electric field is compared with the spectral composition obtained with the second intensity of applied electric field to provide a measurement of the electrophoretic mobility of the suspended particles (abstract; claim 1). It is noted that intensity is inversely proportional to frequency. Thus, **the different intensities corresponds to the different frequencies**. However, DeRemigis is silent on using two specifically different frequencies to remove the electro-osmotic velocity and obtain the electrophoretic mobility of particles. In view of the apparatus having substantial identical functions to measure the electrophoretic mobility, apparatus disclosed by DeRemigis using two

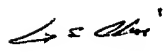
Art Unit: 1713

electric fields having different intensities to measure electrophoretic mobility would lead to remove electro-osmotic velocity. In turn, the two electric fields having different intensities would fall into the claimed frequency difference. Since the PTO does not have proper means to conduct experiments, the burden of proof is now shifted to applicants to show otherwise. **In re Best**, 562 F.2d 1252, 195 USPQ 430 (CCPA 1977); **In re Fitzgerald**, 205 USPQ 594 (CCPA 1980).

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling-Siu Choi whose telephone number is 571-272-1098.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reach on 571-272-1114.


LING-SUI CHOI
PRIMARY EXAMINER

January 17, 2006